بسم الله الرحمن الرحيم

عنوان المحاضرة: Shoulder injuries
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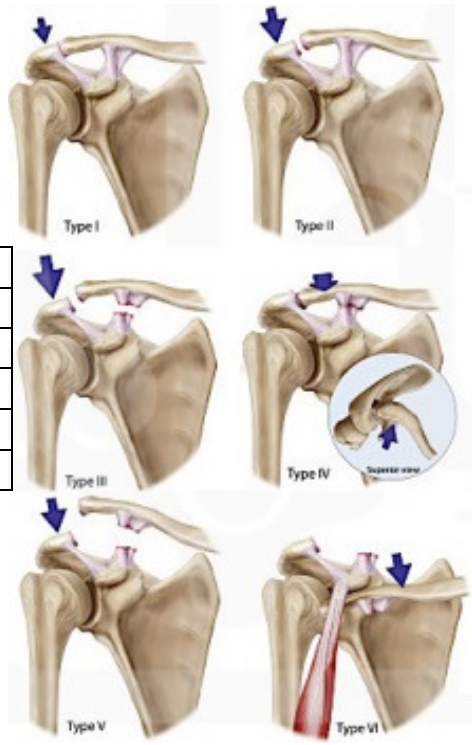
Anatomy of the shoulder joint:

-4 Bones: Humerus - Scapula - Clavicle - Sternum
-4 Joints: Glenohumeral - Acromioclavicular - Sternoclavicular - Scapulothoracic
-Glenohumeral Joint: Most common dislocated joint - Lacks bony stability
Rotator cuff muscles→ stabilize shoulder (Supraspinatus - Infraspinatus - Teres Minor - Subscapularis)

Shoulder injuries:



1-Acromioclavicular Joint Sprain: "Shoulder separation"

-Common
-Mechanism: ▪Fall landing on "point" or lateral aspect of shoulder
▪Fall on outstretched hand
-Classification:

Type 1	Non-displaced sprain of AC ligament
Type 2	Torn AC ligament but coracoclavicular ligament intact
Type 3	Disruption of both ligaments without clavicle displace.
Type 4	Distal clavicle displaced posteriorly into trapezial fascia
Type 5	Extreme superior elevation of clavicle
Type 6	clavicle displaced inferior to acromion & coracoid process

Clinically:
-History of trauma
-Well-localized swelling & tenderness over AC joint
-Painful active & passive range of motion
-Crossover testing increases pain

Treatment:
▪ Type I, II, III: Conservative treatment (Ice, Rest, NSAIDS - Begin ROM exercise as soon as tolerated)
▪ Type IV and higher: May require further surgical intervention

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2-Sternoclavicular joint displacement:

-Mechanism: Fall on outstretched hand - Direct trauma
-Clinically: Ant: Swelling - Post: compression on trachea & esophagus
-Treatment: Ant: Conservative - Post: open reduction (No Int. fixation in order not to injury great vessels)

3-Rotator cuff muscles injury:

-May be complete or partial. ▪Minor injury: conservative ttt. ▪Major injury: need surgical interference.

4-Clavicle fracture:

-Most occur in middle one-third of clavicle
-Mechanism: ▪Fall on outstretched arm or point of shoulder ▪Direct blow to mid-portion of clavicle
-Clinically: Pain, swelling, crepitus
-There is a risk of injury to: Pleura, brachial plexus & subclavian artery. So, Complete neurovascular assessment is very important.
-Treatment: ▪Conservative (Sling for 4 - 6 weeks) ▪Marked displacement: ORIF by plate & screws

5-Anterior shoulder dislocation: "The most common"

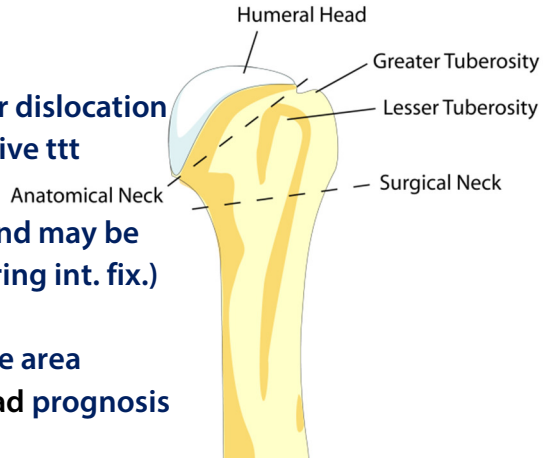
Dislocation: Complete separation of articular surfaces
Subluxation: Abnormal translation of humeral head on glenoid without complete separation of articular surfaces

Mechanism: ▪ Forced extension, abduction, external rotation
▪Direct blow to posterior or posterolateral shoulder ▪Repeated episodes of overuse (subluxation)

Physical Exam:
▪Severe pain ▪Arm held in abduction & external rotation
▪Humeral head palpable anteriorly
▪Unable to completely internally rotate or abduct the shoulder
▪Thorough neurological exam (close relation of axillary nerve)

Treatment:
-Close reduction under general anesthesia by either:
▪*Traction-countertraction* ▪*Stimson maneuver*
-Then, sling: for healing of labrum (*Bankart's lesion*), capsule & subscapularis
+ ice & NSAIDs & protected range of motion for 3-4 weeks
-Rotator cuff strengthening after acute pain resolves
-Return to sport when normal strength & motion regained
-Recurrent dislocation:
MRI for accurate determination of the lesion – Surgery for augmentation of capsule & subscapularis ms
**Posterior dislocation is less common, occurs in epileptic patients, ttt is conservative

6-Fracture of proximal humerus:



-Mechanism: Fall on outstretched arm
-Greater trochanter fracture occurs usually with anterior shoulder dislocation and usually doesn't require surgical intervention. Only conservative ttt

-Fracture at the surgical neck requires ORIF with plate & screws and may be associate with injury of axillary nerve (which can also happen during int. fix.)
-Axillary nerve injury is characterized by:
▪Loss of abduction of shoulder (deltoid) ▪Sensory loss at badge area
-Anatomical neck fracture alters the blood supply so, there is a bad prognosis due to the occurrence of AVN
-Try closed internal fixation in young patients, but if failed or the patient is old proceed to Arthroplasty